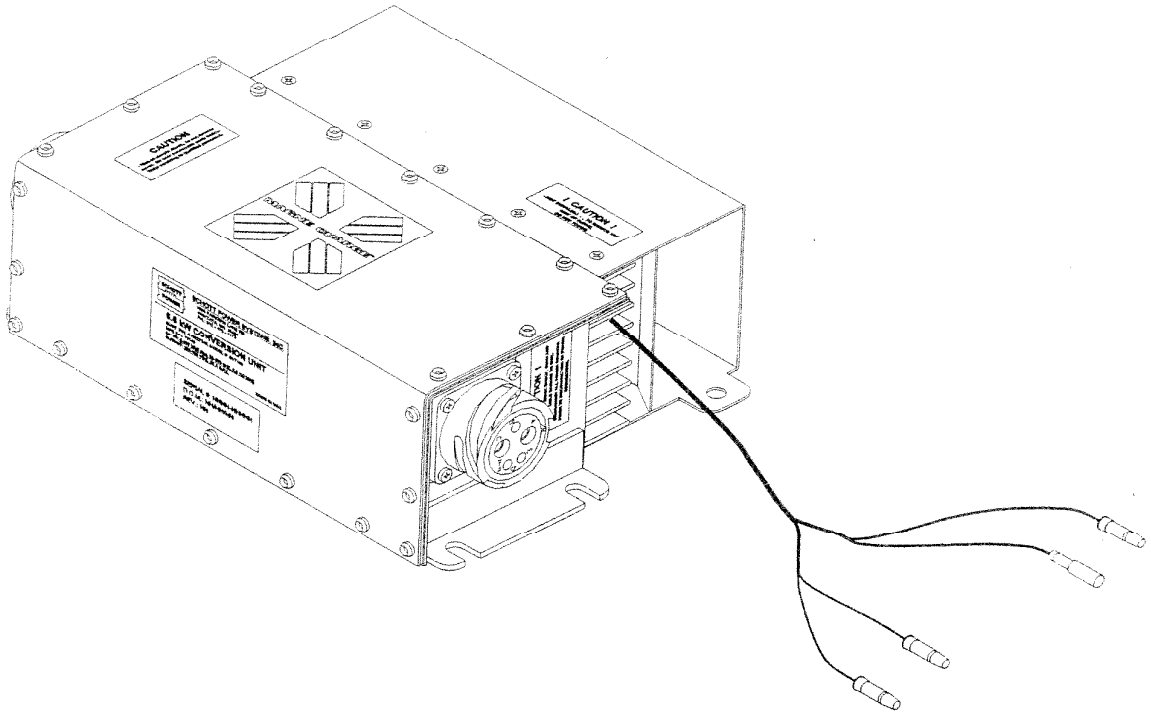
I have one of these and conn cables if you need it. Jim

SCHOTT POWER SYSTEMS INCORPORATED

ENGINEERING/SALES [] 1000 PARKERS LAKE ROAD [] WAYZATA, MINNESOTA 55391 [] TELEPHONE (612) 475-1173 [] FAX (612) 475-1786

MANUFACTURING [] 4418 HAINES ROAD , SUITE 400 [] DULUTH, MINNESOTA 55811 [] TELEPHONE (218) 727-3115 [] FAX (218) 727-0331



ON VEHICLE CONVERTER

SPECIFICATION

6.5 kW DC OUTPUT

Revision: A

Date: 9/25/96

ıeral

This On Vehicle Converter (OVC) is a high frequency AC to DC power rectifier and filter that provides up to 6500 Watts of unregulated output power at up to 22 Adc. The unit is intended to be used on board an electric vehicle as a component in an SAE J-1773 inductive charging system with battery voltages of 430 Vdc or less. A low voltage fan is used for cooling the OVC that must be operated, via an external 12Vdc power source, during charging. A charge controller external to the conversion box shall, in addition to supervising the charge current into the EV battery pack and monitoring the system for faults, reduce or remove the throughput power if the temperature of the OVC reaches the maximum safe operating limit. A thermal sensor (thermistor) is provided on the OVC. High voltage interlock pass through is provided to verify connector seating.

OVC Electrical and Physical Characteristics

Characteristic	Min	Typ	Max	Unit
Output Power, P_{out}, for $I_{out} \leq 22A$ (See Figure 1 and Notes 1,5)	0	--	6500	W
DC Output Current (De-rate for Sine^2, see Notes 2, 5)	0	--	22	Adc
DC Output Voltage, V_{out} (at Output Terminals)	0	--	430	Vdc
Peak Input Voltage (see Figure 2)	--	--	500	V
Thermistor Shutdown Resistance (see Figure 3, and Note 3)	1467	1482	--	Ohms
Thermistor Power Dissipation	--	--	8	mW
Operating Ambient Temperature, Fan inlet (see Note 3)	-18	--	+49	°C
Storage Temperature	-40	--	+66	°C
Input Voltage Plateau (see Note 4)	--	V_{out}+2.5	--	V
Operating Frequency (see Figure 3 for current dependent limits)	80	--	370	kHz
Output Ripple (peak-to-peak relative to the dc output voltage)	--	--	+/- 2	%
Isolation from Chassis, Input and Output Connectors (J1 and J2), all pins @500 Vdc	900K	--	--	Ohms
Interlock Voltage to chassis	--	4 to 12	500	Vdc
Interlock Current	--	>25	1000	mA
Fan Operating Voltage	10	12	14	Vdc
Fan Operating Current (V_{fan} = 12.0Vdc)	--	270	500	mA
Fan Inrush/Locked Rotor Current	--	--	1000	mA
Mass (See Note 6)	--	4.25	4.5	Kg

Notes:

1. Fan must operate continuously when the output current of the OVC is greater than zero.
2. For Sine^2 Operation the peak output current of the OVC must be limited to 30Adc. This will typically limit the average dc output current to 19.1 Adc.
3. Thermal monitor (of the thermistor) and high temperature shutdown must be provided external to the OVC. If a shutdown occurs, the fan should remain powered for a minimum of five minutes with the output power at zero before operation is resumed.
4. This parameter is controlled by output voltage of the OVC which is typically determined by the voltage of the battery pack being charged.
5. Fan operating at 12.0 Vdc.
6. Exclusive of shipping container.

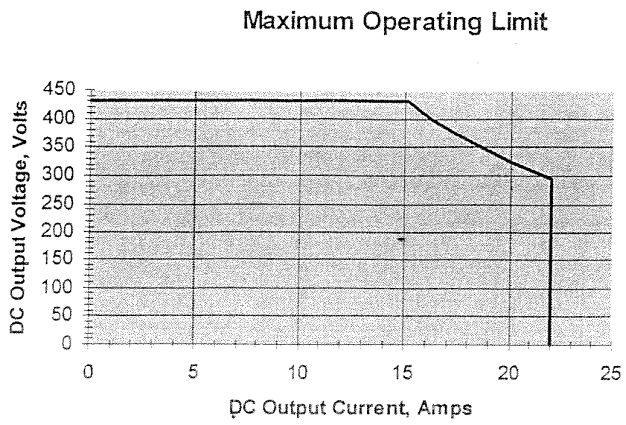


Figure 1. Maximum output current as a function of output voltage.

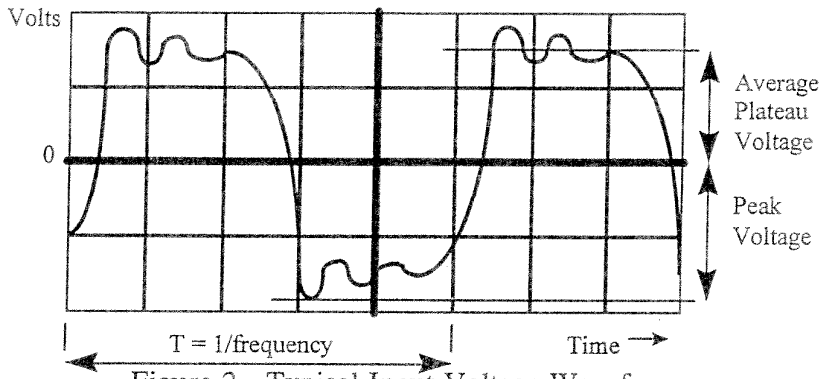


Figure 2. Typical Input Voltage Waveform.

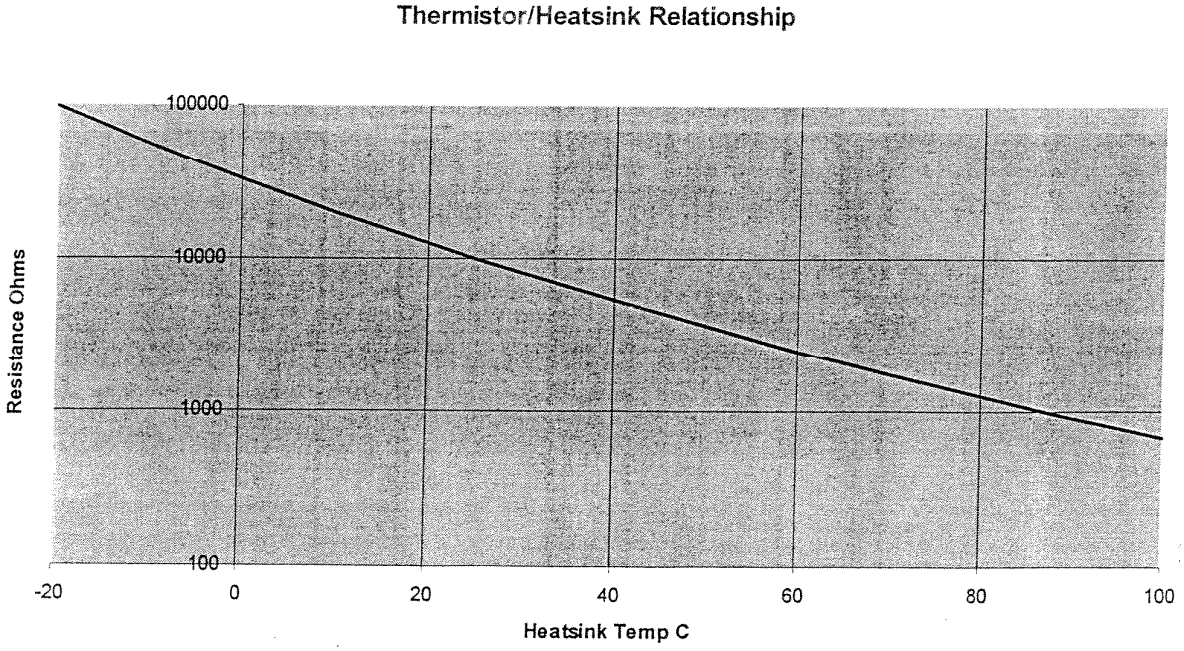


Figure 3. Thermistor resistance as a function of the heatsink temperature

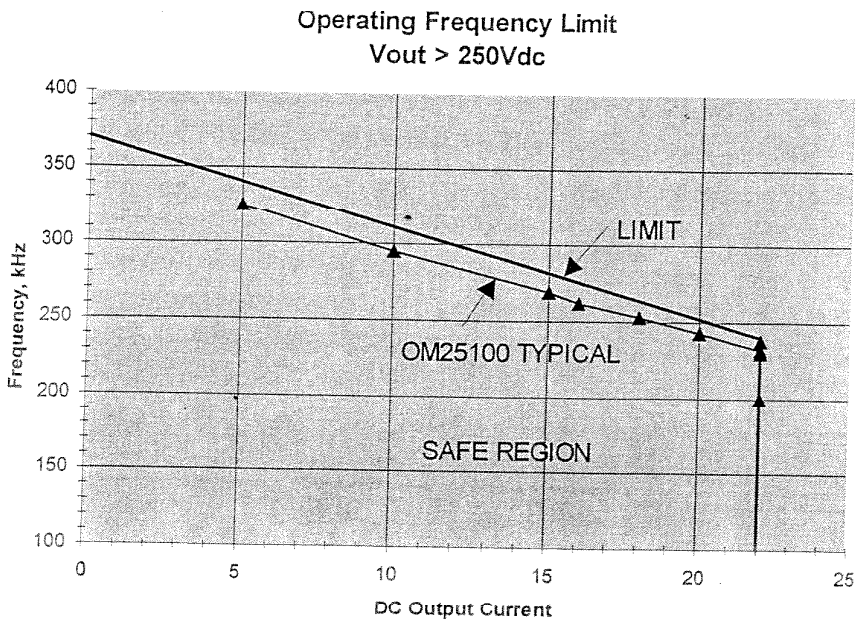


Figure 4. Operating frequency limit as a function of DC output current.

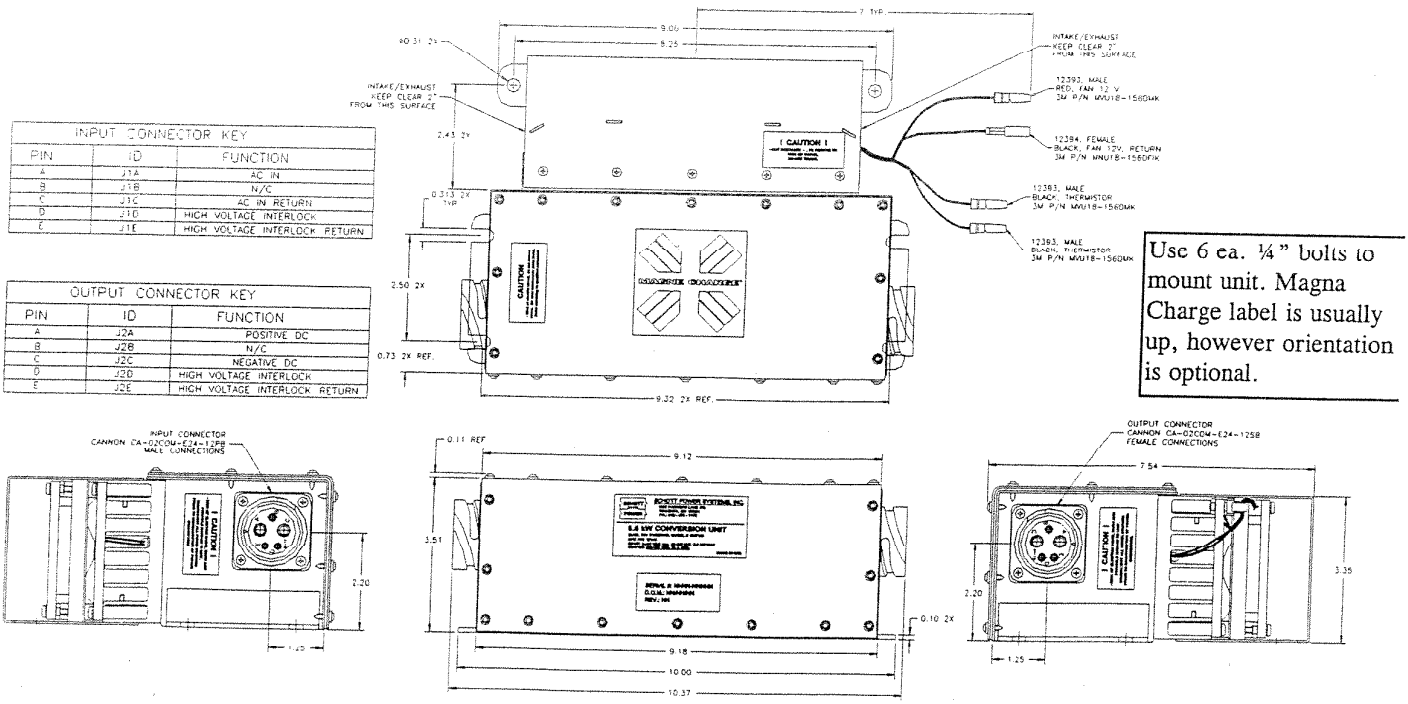
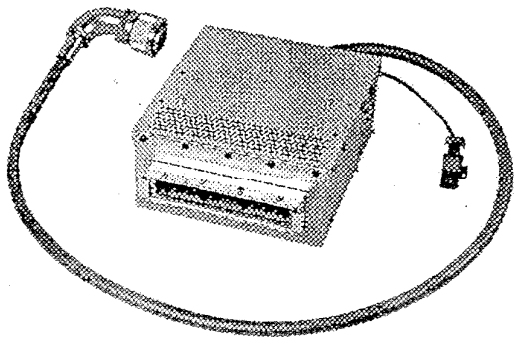

INPUT CONNECTOR KEY
PIN | ID | FUNCTION
A | J1A | AC IN
B | J1B | N/C
C | J1C | AC IN RETURN
D | J1D | HIGH VOLTAGE INTERLOCK
E | J1E | HIGH VOLTAGE INTERLOCK RETURN
OUTPUT CONNECTOR KEY
PIN | ID | FUNCTION
A | J2A | POSITIVE DC
B | J2B | N/C
C | J2C | NEGATIVE DC
D | J2D | HIGH VOLTAGE INTERLOCK
E | J2E | HIGH VOLTAGE INTERLOCK RETURN
INTAKE/EXHAUST KEEP CLEAR 2" FROM THIS SURFACE
CAUTION
Use 6 ea. ¼" bolts to mount unit. Magna Charge label is usually up, however orientation is optional.

Figure 5. Mounting dimensions and specifications.

MAGNE CHARGE™

VEHICLE OWNERS MANUAL INFORMATION



CHARGE PORT
CP7100

The following safety information must be included in the Safety Section of the Vehicle Owners Manual. The phrases "IMPORTANT SAFETY INSTRUCTIONS" and "SAVE THESE INSTRUCTIONS" should be all caps with letters at least 3/16" tall. Capital letters in the body text should be at least 5/64" tall and lower case letters should be at least 1/16" tall.

Also, due to Federal Communications Commission regulations, the FCC ID statement supplied below must appear in the Vehicle Owners Manual.

Suggested text for Introduction, Operation, and Technical Information is also provided.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS. Read these instructions completely.

The CP7100 Magne Charge™ Charge Port is designed with the safety concerns of the vehicle operator in mind; however, the following safety precautions must be read and followed.

1. USE ONLY MAGNE CHARGE™ CHARGING SYSTEMS WITH THE CP7100 CHARGE PORT. CONNECTING THIS CHARGE PORT TO OTHER CHARGING SYSTEMS MAY RESULT IN EQUIPMENT DAMAGE.

2. The CP7100 Charge Port has no user-serviceable parts inside. **DO NOT** take it apart.

CAUTION: NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

3. Keep the Charge Port door closed except when charging the vehicle. This will prevent debris from clogging the inside of the Charge Port. Remove any debris from the face plate of the Charge Port. **DO NOT** attempt to use sharp objects to remove debris from inside the Charge Port. If debris inside the Charge Port prevents seating of the Charging Paddle, notify proper service personnel.

MODEL /FCC ID: XXXXXX

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; and (2) This device must accept any interference received, including interference that may cause undesired operation.

INTRODUCTION

Welcome to the new and exciting world of electric vehicles. The inductive Charge Port installed into your vehicle allows you to use the Magne Charge™ inductive charger systems to charge your electric vehicle's main batteries. The Mange Charge™ inductive coupling design in combination with built-in state-of-the-art safety features ensures no danger of shock during charging of your vehicle.

OPERATION

The operation of the Charge Port is simple;

1. Open the Charge Port door.
2. Insert the Charge Paddle into the Charge Port. When the paddle is properly inserted it will "snap" into place as the paddle locks in place.
3. After inserting the Charge Paddle, the Charger will attempt to charge the vehicle unless there is a charger or Charge Port fault. (Refer to the Charger manual for specific charging procedures)
4. Remove the Charger Paddle after charging and return it to the Charger. It is safe to remove the Charger Paddle while charging – the Charger will automatically stop charging as the Paddle is moved.
5. Close the Charge Port door.

TECHNICAL INFORMATION

Input		
	Voltage	475 VAC peak
	Current	22.5 A
Output		
	Voltage	475 VAC peak
	Current	22 A
	Power	6.6 kW max.
Dimensions		
	Height	94.5 mm
	Width	254.6 mm
	Depth	197.4 mm
	Weight	5.5 Kg

If you have additional questions or need further assistance, please contact:

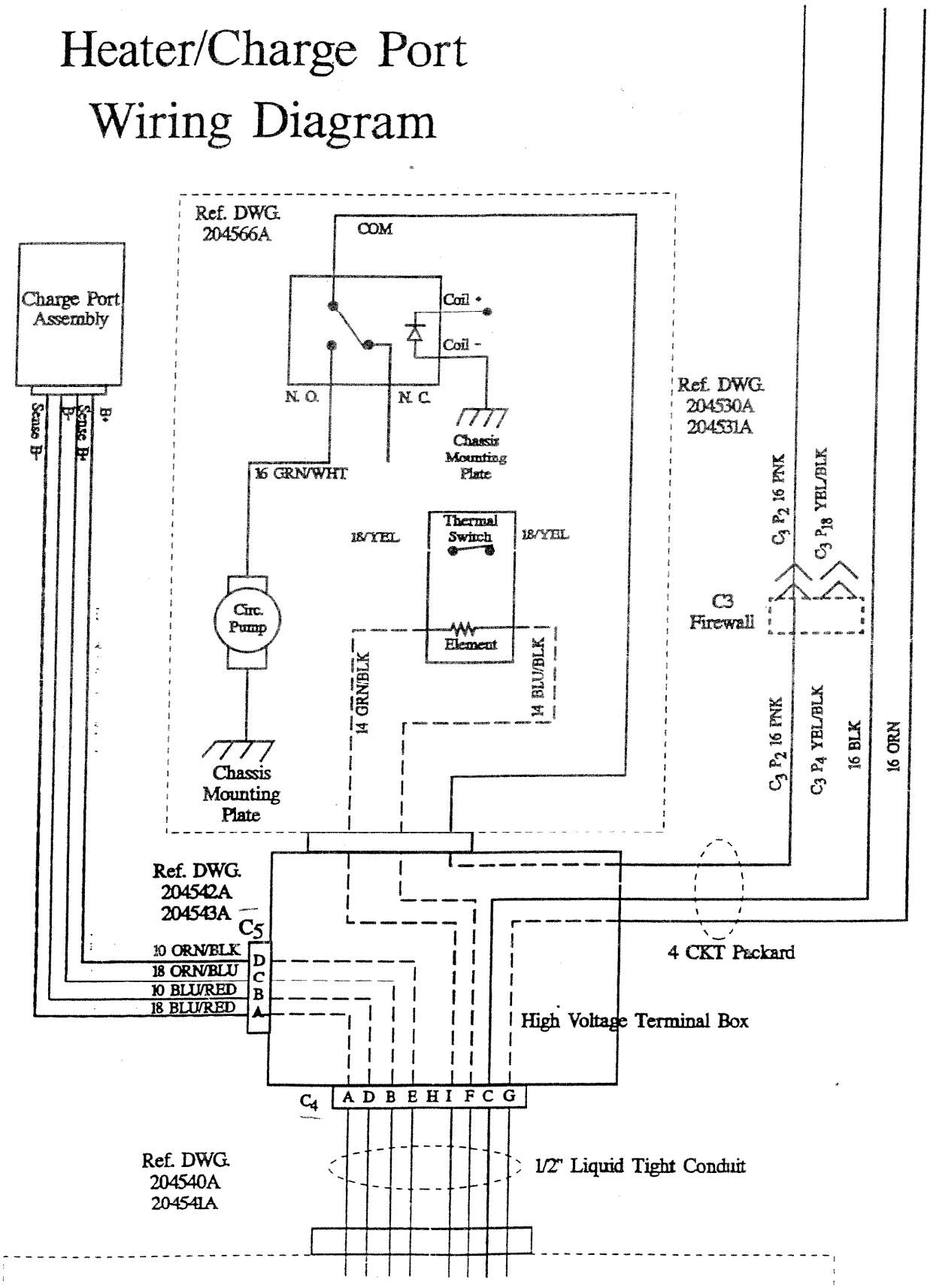
Power Control Systems
Building 232 / MS 4030
3050 W. Lomita Blvd.
P.O. Box 2923
Torrance, Ca. 90509-2923
Attention: Service Center
1-800-482-6644

LISTED
EV CHARGE PORT
7M60

16244253

Magne Charge™ is a trademark of Power Control Systems
a unit of Delco Electronics

Heater/Charge Port Wiring Diagram



MAGNE CHARGE

DELCO ELECTRONICS CORPORATION
TORRANCE, CA
90509-2923

Listed
EV1 BATTERY CHARGER
7M60

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DELCO ELECTRONICS™

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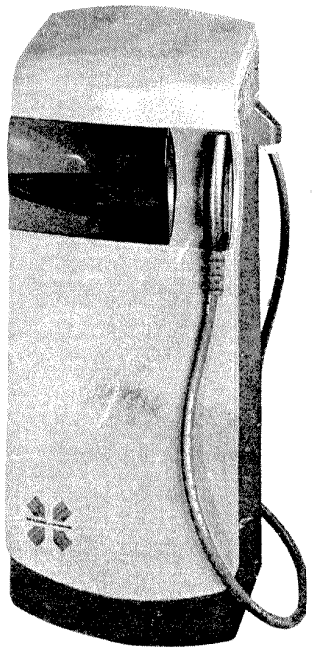
WM200 Wall Mount Inductive Charger

Installation Guide



Electric Vehicle Charger

MAGNE CHARGE